

REMARKS

Claims 15-28 were previously pending in the application. Claims 26-28 are withdrawn. This Amendment amends claims 15-28 and adds new claims 29-42. No new matter is added. Claims 15 and 26 are independent.

The Restriction Requirement:

The Office Action maintains the Restriction Requirement.

Applicants respectfully submit that the Restriction Requirement should be withdrawn and claims 26-28 should be rejoined as satisfying the unity of invention requirements with claims 15-25 under 37 C.F.R. § 1.475(b).

As provided in 37 C.F.R. § 1.475(b), a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories:

[...]

(2) A product and process of use of said product; or

[...]

(4) A process and an apparatus or means specifically designed for carrying out the said process [...].

Claim 15 is directed to a process (method of operating a dishwasher) of use of the product (dishwasher) of claim 26, and claim 26 is directed to a product (dishwasher) specifically designed for carrying out the process (method of operating a dishwasher) of claim 15. Thus, claims 15 and 26 have unity of invention under 37 C.F.R. § 1.475(b).

Claim 26 recites each of the corresponding special technical features of claim 15, which define the contribution which the claimed invention, considered as a whole, makes over the prior art. Accordingly, Applicants respectfully request withdrawal of this Restriction Requirement and rejoinder of claims 26-28 as satisfying the unity of invention requirements with claims 15-25 under 37 C.F.R. § 1.475(b).

Should the Restriction Requirement be maintained and all of the elected claims are found to be in condition for allowance, Applicants respectfully request rejoinder and allowance of all the claims under M.P.E.P. § 821.04.

Request for Consideration of References cited in Information Disclosure Statement

The Office Action asserts that the Information Disclosure Statement filed on June 20, 2006, fails to comply with 37 C.F.R. § 1.98(a)(3) because it allegedly does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 C.F.R. § 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language (particularly, DE 2013716, DE 2823493, DE 3021755, DE 2848375 and DE 2733576), and therefore, has been placed in the application file, but the information referred to therein has not been considered. The Office Action noted that DE 2013716 has been considered to the extent it can be understood from an EPO machine translation.

First, Applicants respectfully submit that, as evidenced by the Image file Wrapper for the present application, the Information Disclosure Statement filed on June 20, 2006, was accompanied by a copy of an International Search Report (ISR) from the PCT International Bureau in PCT/EP2004/053428, which identifies the relevance of each of DE 2013716 and DE 2823493 cited in the ISR not in the English language as a category 'X' reference. M.P.E.P. § 609.04(a)(III) states that "[w]here the information listed is not in the English language, **but was cited in a search report or other action by a foreign patent office in a counterpart foreign application**, the requirement for a concise explanation of relevance can be satisfied by submitting an English-language version of the search report or action which indicates the degree of relevance found by the foreign office. **This may be** an explanation of which portion of the reference is particularly relevant, to which claims it applies, or **merely an "X", "Y", or "A" indication on a search report.**" Emphasis added Applicants. Thus, the Information Disclosure Statement filed on June 20, 2006, complied with the requirements of 37 C.F.R. § 1.98(a)(3)(i) with respect to at least DE 2013716 and DE 2823493.

Second, as evidenced by the Image file Wrapper for the present application, an additional Information Disclosure Statement was filed on October 26, 2011, subsequent to the mailing date of the present Office Action, and included an English translation of the Abstract of each of DE 2013716, DE 2823493, DE 3021755, and DE 2848375.

M.P.E.P. § 609.04(a)(III) states that submission of an English language abstract of a reference may fulfill the requirement for a concise explanation.

The Information Disclosure Statement filed on October 26, 2011, also cited U.S. Patent No. 4,038,103, which is the priority application of DE 2733576.

Thus, the Information Disclosure Statement filed on October 26, 2011, complies with the requirements of 37 C.F.R. § 1.98(a)(3). Applicants respectfully request the issuance of a signed and initialed Form PTO/SB/08A that indicates that all of the references cited in the Information Disclosure Statement have been considered by the Office, along with the next official action.

The Drawing Objections

The drawings are objected to as failing to comply with M.P.E.P. § 608.02(g).

This Amendment encloses Replacement Sheet - Figure 1 to include the legend “Prior Art” in accordance with the Examiner’s helpful suggestions, thereby obviating this objection. This Amendment does not add new matter.

Applicants respectfully request withdrawal of this objection.

The Specification Objections

The disclosure is objected to because of informalities. This Amendment amends the specification, thereby obviating this objection.

Applicants respectfully request withdrawal of this objection.

The Claim Objections

The Office Action objects to claim 20 because of informalities. This Amendment amends claim 20 to correct the informalities, thereby obviating this objection.

Applicants respectfully request withdrawal of this objection.

The Rejections under 35 U.S.C. § 112, second paragraph

The Office Action rejects claims 18 and 20-23 under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

This Amendment amends the claims to particularly point out and distinctly claim the subject matter which applicant regards as the invention, thereby overcoming these rejections. Applicants respectfully request withdrawal of these rejections.

The Claimed Invention

Dishwashers commonly include at least one washing container and spray devices located therein, wherein the spray devices are loaded with liquid conveyed by a recirculation pump in order to act upon items to be washed in the washing container with washing fluid. In the conventional dishwashers, a plurality of wash programs composed of the partial program steps pre-wash, clean, intermediate rinse, clear rinse and dry can be selected by a program controller. Since the washing fluid can accumulate washing residue during the cleaning phases, the dishwasher commonly includes filter systems in the water circuit of the dishwasher through which washing water circulated by the recirculation pump is passed continuously.

The present invention recognizes that the filter systems in known dishwashers can become clogged with washing residues in the course of the washing program, for example, since in the beginning of each washing program, washing residues are released relatively rapidly from the items to be washed, resulting in an increase in the quantity of washing residues in the washing liquid and in the filter system. This may result in back-contamination of the items to be washed as a result of size reduction and fine distribution of the washing residues deposited at the filter systems, and thus, may reduce the cleaning effect of the dishwasher. Obstructions can also occur in the washing liquid circuit, whereby the cleaning function of the filter systems can be impaired. Moreover, the energy consumption of the dishwasher required to achieve a satisfactory cleaning result may be increased as a result of the obstructions in the washing liquid circuit and the lengthening of the wash program.

The present invention provides a method whereby a dishwasher can be operated such that washing residues that accumulate during the cleaning phases are removed from the washing liquid early on and the dishwasher filter systems are automatically cleaned before the filter systems can be overloaded. In this way, the cleaning performance of the dishwasher can be improved and the total run time of the wash program can therefore be reduced. The present invention also can avoid impairments in the washing liquid circuit and reduce the total run time of the wash program, thereby reducing the energy required for operation of the dishwasher while providing optimal washing performance.

For example, during a washing operation, the washing liquid is conveyed by a recirculation pump to the spray devices in the dishwasher to produce water jets for cleaning the items to be washed. The washing liquid then flows in the direction of circulation through a filter where washing residues entrained in the washing liquid deposit on the filter surfaces of the filter system. During a pumping-out process, wherein the washing liquid is conveyed from the dishwasher via the lye pump, the direction of flow of the washing liquid in the filter system is opposite to the direction of circulation and the washing liquid flows through the filter surfaces of the filter system in the opposite direction. The deposited washing residues are thereby released from the filter surfaces and pumped away with the used washing liquid via the lye pump. In this way, the filter system is cleaned and its filter function restored. According to the present invention, the alternating operation between the recirculation pump and the lye pump during a part program step can effectively reduce the quantity of washing residues in the filter system while also minimizing or reducing the energy expenditure required for the washing operation. See, e.g., paragraphs [001] - [009]; [014] - [015]; [029] - [032]; [036]; [038]; [041].

The Rejection under 35 U.S.C. § 102

Claims 15, 21-23, and 25 are rejected under 35 U.S.C. §102(b) as being anticipated by the Favret reference (EP 0998872). Applicants respectfully traverse this rejection.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. [...] The identical invention must be shown in as complete detail as is contained in the ... claim." M.P.E.P. § 2131.

Independent claim 15 recites a method for operating a dishwasher comprising at least one washing container, a washing fluid filter system having a filter surface, a re-circulation pump for conveying the washing fluid in a first flow direction through the filter surface of the washing fluid filter system to at least one spray device for acting upon items to be cleaned, which are located in the washing container, a lye pump for pumping away the washing liquid from the dishwasher in a second flow direction through the filter surface of the washing fluid filter system, wherein the second flow direction through the filter surface is opposite to the first flow direction through the filter surface, the method comprising:

executing a wash program at least including partial program steps pre-wash (V_1 , V_2), clean (R_1 , R_2), intermediate rinse, clear rinse (K_1 , K_2) and dry, and

cleaning the filter surface of the washing fluid filter system by operating the re-circulation pump and the lye pump at least temporarily in an alternating manner during at least one of the partial program steps (V_1 , V_2 , R_1 , R_2 , K_1 , K_2) such that the washing fluid is conveyed by the re-circulation pump in the first flow direction through the filter surface of the washing fluid filter system to the at least one spray device, and the washing fluid subsequently is conveyed by the lye pump in the second flow direction through the filter surface of the washing fluid filter system to wash away washing residue from the filter surface of the washing fluid filter system and carry the washing residue out of the dishwasher.

Applicants respectfully submit that the Favret reference does not disclose these features. Instead, the Favret reference simply teaches cleaning a filter portion 13 using water jets sprayed from auxiliary spray nozzles 18 and 19 and then preventing the water

level from rising to the level of the filter portion 13 thereafter such that the lighter soil particles floating in the water that have been previously rinsed from the filter portion 13 by the water jets can be prevented from being brought back into contact with the clean filter portion 13.

Specifically, the Favret reference teaches a program step for a dishwasher in which a circulation pump is temporarily de-energized while a drain pump 5 is used to partially let off (drain) water in the vessel in order to reduce the amount of water remaining in the vessel to a level S1 that is lower than a surface of the substantially plane filter portion 13, which is cleaned and rinsed by water jets sprayed from the auxiliary spray nozzles 18 and 19. In this way, the Favret reference teaches that the lighter soil particles floating in the water that have been previously rinsed from the filter portion 13 by the water jets sprayed from the auxiliary spray nozzles 18 and 19 can be prevented from being brought back into contact with the clean filter portion 13. See, e.g., Fig. 1; and paragraphs [0009], [0020], [0024], [0026], [0034], and [0035].

The Favret reference very clearly does not disclose or provide any teaching of cleaning the filter surface of the washing fluid filter system by operating the re-circulation pump and the lye pump at least temporarily in an alternating manner during at least one of the partial program steps (V_1 , V_2 , R_1 , R_2 , K_1 , K_2) such that the washing fluid is conveyed by the re-circulation pump in the first flow direction through the filter surface of the washing fluid filter system to the at least one spray device, and the washing fluid subsequently is conveyed by the lye pump in the second flow direction through the filter surface of the washing fluid filter system to wash away washing residue from the filter surface of the washing fluid filter system and carry the washing residue out of the dishwasher, as recited in claim 15.

Claims 21-23 and 25 are patentable over the Favret reference by virtue of their dependency from claim 15, as well as for the additional features recited therein.

Applicants respectfully request withdrawal of this rejection.

The Rejections under 35 U.S.C. § 103

Claims 17-19 and 24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Favret reference. Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Favret reference in view of the Bosch reference (DE 2013716; EPO machine translation).

Applicants respectfully traverse these rejections.

Claims 16-20 and 24 are patentable over the applied references, either individually or in combination, by virtue of their dependency from claim 15, as well as for the additional features recited therein.

For example, Applicants respectfully submit that the features of claim 16 are not obvious because one of ordinary skill in the art would not have any apparent reason to modify the Favret reference in view of the Bosch reference to arrive at the features of claim 16 since the Favret reference teaches driving both the recirculation pump 10 and the drain pump 5 using a single, reversible electric motor 17. See, e.g., paragraph [0019]. Thus, it would not be obvious to operate the re-circulation pump and the lye pump simultaneously at least temporarily during the at least one partial program step (V_1 , V_2 , R_1 , R_2 , K_1 , K_2), as recited in claim 16.

Applicants respectfully request withdrawal of these rejections.

The New Claims

This Amendment adds new claims 29-42. This Amendment does not add new matter. See, e.g., Figs. 2-4; and paragraphs [001] - [009]; [014] - [015]; [029] - [032]; [036] - [038]; [041].

None of the applied references discloses or suggests the subject matter defined by claims 29-42 for at least the same reasons as independent claim 15, as well as for the additional features recited in these claims.

For example, one of ordinary skill in the art would not modify the Favret reference to fill the washing container to a maximum filling level during each of the partial program steps (V_1 , V_2 , R_1 , R_2 , K_1 , K_2), as recited in claim 41, or subsequent to the cleaning the filter surface of the washing fluid filter system during the at least one partial

program step (V_1 , V_2 , R_1 , R_2 , K_1 , K_2), as recited in claim 42, since these features are in direct contrast to the object and teachings of the Favret reference. As explained above, the Favret reference teaches preventing the water level from rising to the level of the filter portion 13 such that lighter soil particles floating in the water that have been previously rinsed from the filter portion 13 by the water jets can be prevented from being brought back into contact with the clean filter portion 13.

Applicants respectfully request allowance of these claims.

CONCLUSION

In view of the above, entry of the present Amendment and allowance of Claims 15-42 are respectfully requested. If the Examiner has any questions regarding this amendment, the Examiner is requested to contact the undersigned. If an extension of time for this paper is required, petition for extension is herewith made.

Respectfully submitted,

/Andre Pallapies/

Andre Pallapies

Registration No. 62,246

February 23, 2012

BSH Home Appliances Corporation
100 Bosch Boulevard
New Bern, NC 28562
Phone: 252-672-7927
Fax: 714-845-2807
andre.pallapies@bshg.com